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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,169	01/15/2004	Bernd Jagdhuber	H01.2-11378	4864

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VIDAS, ARRETT & STEINKRAUS, P.A.  
6109 BLUE CIRCLE DRIVE  
SUITE 2000  
MINNETONKA, MN 55343-9185

EXAMINER

ROGERS, DAVID A

ART UNIT PAPER NUMBER

2856

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/758,169

Applicant(s)

JAGDHUBER, BERND

Examiner

David A. Rogers

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                    |                                                                             |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____                                                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040312</u> .                                                            | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

a. Page 1, line 27 the sentence beginning with "Such pipette..." is confusing. Perhaps the applicant is suggesting that known pipette tips are disposable.

b. Page 2, line 27 change "advantage" to --disadvantage-- so that the sentence is correct regarding the lack of direct return information.

c. Page 4, lines 20-22 are poorly written. It is suggested that the following replace the sentences beginning with "If the electric..." and "Merely a larger..."

The proportioning device can still be utilized even if the electric voltage supply is not available, e.g., when the battery is dead or not available. This situation may simply require a larger force to be applied to the actuating device.

d. Page 4, line 24 change "complete" to --complement-- so that the sentence is correct.

e. Page 8, line 7 change "springy plate 7" to --circular plate 7-- to be consistent with the description on page 7, line 10.

f. Page 8, line 7 change "springy disk 8" to --annular disk 8-- to be consistent with the description on page 7, line 10.

g. Page 8, line 10 the sentence beginning with "The driving motor" is poorly written. It is not clear what is meant by a motor that "readily runs along here."

h. Page 8, lines 21-29 and continuing through page 9, lines 1-5 should be deleted.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-4, 7-18, 20, and 21 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by United States Patent Application Publication 2002/0095998 to Kriz *et al.*

Kriz *et al.* discloses a proportioning device, as seen in figure 3, comprising:

- a manually operable actuating device (reference item 60);
- a sensor (force transducer (reference item 92)) associated with the actuating device for detecting a force manually exerted on the actuating device;
- an electric driving motor (reference item 98);
- an electric control (reference item 110) for controlling the driving motor during the detection by the sensor;
- an electric voltage supply (reference item 48); and
- a displacement device (reference item 20) coupled to the actuating device.

The voltage supply must be connected to the controller and the sensor in order to provide power to both. The controller receives signals from the sensor via a signal line (reference item 94).

With regard to claim 2 the plunger button (reference item 60) is analogous to an actuating button.

With regard to claim 3 the actuating device operates against the force of a spring (reference item 91).

With regard to claim 4 the device operates until a stop (reference item 108) is activated by an arm (reference item 106).

With regard to claim 7 Kriz *et al.* discloses that the force transducer can be a piezoelectric force transducer. Piezoelectric devices are known to be a broad description of either piezoresistive or piezocapacitive devices. In either case the transducer if Kriz *et al.* produces a signal that varies with the amount of force applied to the plunger.

With regard to claims 8-11 the controller will continuously control the driving motor when a force is sensed by the force transducer for at least one stage.

With regard to claims 12-14 and 16 the motor and plunger button are connected to plunger (reference item 20) via a rod-shaped coupling device (reference item 104). The plunger is guided up and down via a cylinder (not numbered).

With regard to claim 15 to device operates until a stop (reference item 108) is activated by an arm (reference item 106) that is connected to the rod.

With regard to claims 17 and 18 the device is a pipette, and a tip is clearly shown in figure 3. Tips are known in the art to be removable and disposable. See United States Patent 4,750,373 to Shapiro, noted below, where proportioning devices are known as pipettes and/or syringes.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kriz *et al.*

Kriz *et al.* teaches the use of a force transducer to detect the force applied to a plunger button of a proportioning device. Kriz *et al.* does not teach a force transducer integrated into the actuating device.

The positioning of the force transducer from below the plunger button to be integrated within the plunger button amounts to mere relocation of the known parts of Kriz *et al.* A proportioning device with an integrated force sensor would not change in any manner the functionality or the method of operating the device of Kriz *et al.* Furthermore, the applicant has provided no

positive benefit or advantage as to why an integrated sensor provides new or otherwise unobvious results over the teachings of Kriz *et al.*

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kriz *et al.* as applied to claim 1 above, and further in view of United States Patent Application Publication 2004/0099067 to Chen *et al.*

Kriz *et al.* teaches a hand-held pipette. Kriz *et al.* does not teach a pipette comprising a device for detaching a tip.

Chen *et al.* teaches a hand-held pipette, as seen in figure 2. The pipette comprises a withdrawing key (reference item 20) coupled to a tappet (reference item 42) and a pad (reference item 43). When the user wishes to remove a tip (reference item 9) the key is pressed. The movement of the key forces the casing (reference item 5) to move downwards. This motion causes the tip to fall off of the pipette.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Kriz *et al.* with the teachings of Chen *et al.* to provide a proportioning apparatus having a device for detaching a pipette tip. Doing so would allow the tips to be disposed without having to manually grab the tips that might expose the user to dangerous or otherwise hazardous materials.

### **Conclusion**

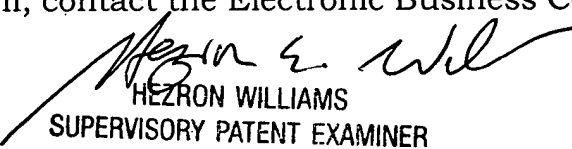
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

United States Patent 4,750,373 to Shapiro teaches that proportioning devices are commonly known as either pipettes and/or syringes.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Rogers whose telephone number is (571) 272-2205. The examiner can normally be reached on Monday - Friday (0730 - 1600).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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30 August 2005

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